

**BY ORDER OF THE COMMANDER  
302 AIRLIFT WING**

**302 AIRLIFT WING INSTRUCTION 21-102**

**1 DECEMBER 2011**



**Maintenance**

**FUNCTIONAL CHECK FLIGHT  
INSTRUCTIONS**

---

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at Air Force E-Publishing.af.mil for downloading.

**RELEASABILITY:** There are no releasability restrictions on this publication.

---

OPR: 302MXG/MXQ

Certified by: 302 AW/CC  
(Col Jack H. Pittman Jr.)

Pages: 4

Supersedes: 302AWI21-102,  
9 February 2009

---

This Airlift Wing Instruction (AWI) implements Air Force Instruction (AFI) 21-101 *Aerospace Equipment Maintenance Management* and outlines procedures for the 302d Airlift Wing (AW) Functional Check Flight (FCF) and Operational Check Flight (OCF) programs. It applies to all members of the 302d Airlift Wing (AW). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force Information Management Tool (AF IMT) 847, *Recommendation for Change of Publication*; route AF IMTs 847 from the field through major command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims>.

**SUMMARY OF CHANGES**

This revision updates numbering and addition of High Speed Taxi Checks (HSTC).

**1. General.** This instruction expands upon guidance provided by AFI 21-101, AFI 11-2C-130V3, C-130 Operations Procedures; Technical Order (TO) 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*; and TO 1C-130E (H)-6CF-1, *Acceptance and/or Functional Check Flight Procedures USAF Series C-130E/H, AC-130H, EC-130E/H, HC-130H/N/P, LC-130H, WC-130, HC-130(H)N Aircraft*. All unit functions that support the FCF program should be familiar with the policies and procedures outlined in these instructions.

**2. Policy.** All 302 AW assigned aircraft are required an FCF when directed by T.O. 1C-130A-6. Following Modular Airborne Fire Fighting System cleanup a FCF may be accomplished at the discretion of the Quality Assurance Superintendent. The following instructions will be used to administer the FCF/OCF program.

2.1. Maintenance Group (MXG) Quality Assurance (MXQ) Superintendent assigns an FCF Program Manager. Quality Assurance maintains a copy of all FCF qualified aircrews as designated by the 302d Operations Group (OG) Commander (CC).

2.2. The Plans, Scheduling and Documentation section will coordinate FCF requirements with Quality Assurance and the 731st Airlift Squadron (AS).

2.3. Quality Assurance will coordinate with the Production Superintendent and the aircraft crew chief to ensure that all ground operable systems required during the FCF are functionally tested during the preflight inspection.

2.4. High Speed Taxi Checks (HSTC) may be utilized with MXG/CC and OG/CC authorization.

2.4.1. When a HSTC is utilized in lieu of an FCF all FCF procedures will be followed for scheduling, QA review and briefings.

2.5. When all mission-essential maintenance inspections are completed on the aircraft, the Air Force Technical Order (AFTO) Information Management Tool (IMT) 781 Mission Flight Data Document binder will be hand carried to Quality Assurance for review by the Program Manager. The AFTO IMT 781 Mission Flight Data Document binder is normally delivered to Quality Assurance No Later than 24 hours prior to scheduled takeoff or ground engine runs, whichever occurs first. In the case of a post-major Isochronal Inspection (ISO) FCF, the AFTO IMT 781 Mission Flight Data Document binder must arrive no later than 48 hours prior to the scheduled FCF take-off time. The Quality Assurance Supervisor or MXG Commander may waive the 24/48-hour requirement under extenuating circumstances. In all cases, the AFTO IMT 781 Mission Flight Data Document binder will be thoroughly reviewed for adequacy of completed maintenance actions prior to release of the aircraft. The AFTO IMT 781 Mission Flight Data Document binder must include all maintenance actions that caused the FCF to be generated.

2.6. Quality Assurance will accomplish a 100% Quality Verification Inspection on the Preflight Inspection and notify the Maintenance Operation Center when the aircraft is released for flight the Plans, Scheduling and Documentation section will coordinate with 731 Airlift Squadron to establish a takeoff time.

2.7. The aircrew will schedule a briefing time with Quality Assurance no later than two hours prior to scheduled ground engine runs/takeoff time.

2.8. At the pre-FCF briefing, Quality Assurance will furnish the aircrew with a binder containing:

2.8.1. TO 1C-130E (H)-6CF-1, *Acceptance/Functional Check Flight Procedures*.

2.8.2. 302 Airlift Wing Instruction 21-102, *Functional Check Flight Instructions*.

2.8.3. Acceptance and/or FCF checklist worksheet.

2.8.4. TO 1-1-300, *Acceptance/Functional Check Flights, Maintenance Operational Checks*.

2.8.5. Letter designating FCF-qualified aircrew members.

2.9. The Air Force Technical Order (AFTO) Information Management Tool (IMT) 781 Mission Flight Data Document binder and Weight & Balance Handbook are reviewed and presented to the flight crew.

2.10. After completion of the FCF, Quality Assurance will meet the aircrew and conduct a thorough mission debrief. After normal duty hours, Quality Assurance or the flight line supervisor will debrief the crew. This procedure is utilized to ensure that all items requiring checks are completed and properly debriefed and documented. If any items or systems failed the FCF and require an additional FCF to verify aircraft safety or dependability, Maintenance Operation Center will coordinate with Quality Assurance and the Plans, Scheduling and Documentation section to reschedule the aircraft for another FCF after all maintenance is completed.

2.11. All discrepancies discovered by the FCF crew will be documented on the AFTO IMT 781A, *Maintenance Discrepancy and Work Document*. The crew chief monitors the discrepancies on the AFTO IMT 781A, until they are cleared or deferred to the AFTO IMT 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document*. When corrective actions have been taken on discrepancies found during the FCF, the forms must be hand carried to Quality Assurance for review. This is to ensure proper clearing actions have been taken and the FCF data is entered into the Quality Assurance Tracking and Trend Analysis System. The crew chief will then forward the aircraft forms to the Plans, Scheduling and Documentation section for records action.

JACK H. PITTMAN, JR., Colonel, USAFR  
Commander, 302d Airlift Wing

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-2C-130V3, *C-130 Operations Procedures*

AFI 21-101, *Aerospace Equipment Maintenance Management*

AFPD 21-1, *Air and Space Maintenance*

TO 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*

TO 1C-130E (H)-6CF-1, *Acceptance and/or Functional Check Flight Procedures USAF Series C-130E/H, AC-130H, EC-130E/H, HC-130H/N/P, LC-130H, WC-130, HC-130(H)N Aircraft*

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*

AFTO IMT 781A, *Maintenance Discrepancy and Work Document*

AFTO IMT 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document*

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFPD**—Air Force Policy Directive

**AFTO**—Air Force Technical Order

**AS**—Airlift Squadron

**AW**—Airlift Wing

**CC**—Commander

**FCF**—Functional Check Flight

**HSTC**—High Speed Taxi Checks

**IMT**—Information Management Tool

**ISO**—Isochronal Inspection

**MXG**—Maintenance Group

**MXQ**—Quality Assurance

**OCF**—Operational Check Flight

**OG**—Operations Group

**TO**—Technical Order